

REMARKS

I. Status of the Claims

Claims 1-24 were originally filed. As the result of a restriction requirement, claims 1-4 and 12-14 were elected. Subsequently, new claims 25-35 were added to replace claims 1-4 and 12-14. Upon entry of the present amendment, claims 25-35 remain pending, whereas all withdrawn claims are canceled.

II. Claim Rejections

A. 35 U.S.C. §112, Second Paragraph

Claims 25-35 are rejected under 35 U.S.C. §112, second paragraph, for alleged indefiniteness. Specifically, the Examiner contends that the language "under conditions sufficient to permit binding between multiple sets of binding ligands and corresponding target analytes" in claims 25 and 26 is unclear as to what conditions of incubation are sufficient to permit binding. Applicants respectfully traverse the rejection.

According to the MPEP §2173, to satisfy the statutory requirement under 35 U.S.C. §112, second paragraph, claims must particularly point out and distinctly claim the subject matter of the invention. The essential inquiry pertaining to the definiteness requirement is whether a claim sets out and circumscribes a particular subject matter with a reasonable degree of clarity and particularity so as to appraise one of skill in the art of the claim scope. An indefiniteness rejection is appropriate when a person of ordinary skill in the art could not interpret the metes and bounds of the claim. MPEP §2173.02.

In the instant application, the claim language in question, "under conditions sufficient to permit binding between multiple sets of binding ligands and corresponding target analytes," pertains to assays in which specific binding between a pre-determined pair of ligand and its corresponding target analyte is detected. Binding assays of this type are well developed and routinely practiced in the art of biochemistry and molecular biology. For instance, most of the references cited in this application provide detailed teaching of such assay technique, encompassing detection of specific binding between known ligand-analyte binding pairs of

diverse chemical nature, some of which indicated in the application (see, *e.g.*, pages 11-13). In view of this exceptionally high level of technical sophistication in the art, there should be no question that an ordinarily skilled artisan would be able to determine, with a reasonable certainty, whether a particular set of assay conditions would or would not permit specific binding between a particular ligand-analyte pair; in other words, the artisan would have no difficulty to interpret and ascertain the metes and bounds of the claims.

As such, Applicants do not believe that the indefiniteness rejection is appropriate. Withdrawal of the rejection under 35 U.S.C. §112, second paragraph is respectfully requested.

B. 35 U.S.C. §103

Claims 25-29 and 31-34 are also rejected under 35 U.S.C. §103(a) for alleged obviousness over Nagasawa in view of Cronin. In addition, Claims 25 and 26 are further rejected for alleged obviousness over Shipwash in view of Nagasawa. Applicants respectfully traverse the rejections.

To establish a *prima facie* case of obviousness, three basic criteria must be met: first, the prior art references must teach or suggest all the claim limitations; second, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to combine the limitations; third, there must be a reasonable expectation of success in combining the limitations. MPEP §2143.

The claimed invention, as defined by claim 25 and 26, is a method for detecting multiple target analytes in a sample. Among other features, the claimed method requires that, for at least one target analyte, its binding to its corresponding ligand is hindered by a steric interference, whereas for at least one other target analyte, its binding to its corresponding ligand is not hindered. Applicants contend that the Examiner has not identified anything in either Nagasawa, Cronin, or Shipwash that teaches or even remotely suggests this limitation. While conceding that Nagasawa does not teach the feature of a steric interference, the Examiner nevertheless argues that the reference does provide the use of a porous glass powder having a pore size of 50 nm for preparing the reactive probe chip. Because glass beads of the same pore

size are mentioned in the present application, the Examiner concludes that Nagasawa *et al.* "provide, or is capable of providing, the steric interference as recited by instant claims 25 and 26." See paragraph 3 (between pages 3 and 4) of the Office Action mailed December 28, 2007. Applicants cannot agree with the Examiner. The pending claims are method claims, which explicitly require the use of a steric interference that differentially hinders the binding of at least one target analyte but not at least one other target analyte to their respective binding partners. At best, Nagasawa provides an inherent property of a claim component. Yet, an inherent property alone is insufficient to provide a limitation in a method claim, unless such property is relied upon in the method for recited purpose: differential steric hindrance of certain ligand-analyte binding. In other words, to adequately provide the limitation of the differential steric interference recited in these method claims, a reference must teach a step actively using the steric interference in a differential manner as recited in the claims. None of the three cited references teach or even remotely suggest a differential use of such steric interference. In fact, there is no indication anywhere in these references that such property of the porous glass is even recognized. Thus, when viewed together, the references by Nagasawa and Cronin or the references by Shipwash and Nagasawa fail to provide each and every limitation of the pending claims.

Because the Examiner has not met the first requirement for establishing a *prima facie* case of obviousness, Applicants respectfully submit that the obviousness rejections under 35 U.S.C. §103 are inappropriate and should thus be withdrawn.

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Amdt. dated March 18, 2008
Reply to Office Action of December 28, 2007

PATENT

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



Chuan Gao
Reg. No. 54,111

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 415-576-0200
Fax: 415-576-0300
CG:cg
61309889 v1